

FILEID**MATCHKEY

F 9

MM MM MM MM AAAAAAA TTTTTTTTTT CCCCCCCCC HH HH KK KK EEEEEEEEEE YY YY
MM MM MM MM AAAAAAA TTTTTTTTTT CCCCCCCCC HH HH KK KK EEEEEEEEEE YY YY
MM MM MM MM AA AA TT CC HH HH KK KK EE YY YY
MM MM MM MM AA AA TT CC HH HH KK KK EE YY YY
MM MM MM AA AA TT CC HH HH KK KK EE YY YY
MM MM AA AA TT CC HHHHHHHHHHH KKKKKKK EEEEEEE YY YY
MM MM AAAAAAAA TT CC HH HH KK KK EE YY YY
MM MM AAAAAAAA TT CC HH HH KK KK EE YY YY
MM MM AA AA TT CC HH HH KK KK EE YY YY
MM MM AA AA TT CC HH HH KK KK EE YY YY
MM MM AA AA TT CCCCCCCCC HH HH KK KK EEEEEEEEEE YY YY
MM MM AA AA TT CCCCCCCCC HH HH KK KK EEEEEEEEEE YY YY

MATCHKEY
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- MATCH A STRING AGAINST A KEY

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(2) 45 DECLARATIONS
(3) 63 MATCH KEY

0000 1 .TITLE MATCHKEY - MATCH A STRING AGAINST A KEY
0000 2 .IDENT 'V04-000'
0000 3 .
0000 4 .
0000 5 *****
0000 6 *
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0000 24 *
0000 25 *
0000 26 *****
0000 27 *
0000 28 *
0000 29 *++
0000 30 :FACILITY: GENERAL PURPOSE UTILITY SUBROUTINE
0000 31 :ABSTRACT: MATCH A STRING AGAINST A TABLE OF KEYS
0000 32 :
0000 33 :
0000 34 :
0000 35 :ENVIRONMENT: USER MODE/NON-PRIVILEGED CODE
0000 36 :
0000 37 :AUTHOR: W.H.BROWN, CREATION DATE:3-JUN-1977
0000 38 :
0000 39 :MODIFIED BY:
0000 40 :
0000 41 : : VERSION
0000 42 : 01 : -
0000 43 :--

0000	45	.SBTTL DECLARATIONS
0000	46	
0000	47	INCLUDE FILES:
0000	48	
0000	49	
0000	50	MACROS:
0000	51	
0000	52	
0000	53	EQUATED SYMBOLS:
00000004	55	
00000008	56	TABLE = 4
0000000C	57	DESCP = 8
	58	ADDR = 12
	59	ADDRESS OF KEYWORDS
	60	ADDRESS OF DESCRIPTOR FOR STRING
	61	ADDRESS TO STORE RESULT
		OWN STORAGE:
		NONE

0000 63 .SBTTL MATCH KEY
 0000 64 ++
 0000 65 FUNCTIONAL DESCRIPTION:
 0000 66
 0000 67 THIS ROUTINE ACCEPTS A LIST OF COUNTED STRINGS
 0000 68 AND A DESCRIPTOR FOR A VARIABLE LENGTH STRING.
 0000 69 AN ATTEMPT IS MADE TO FIND A STRING IN THE LIST
 0000 70 THAT MATCHES THE VARIABLE STRING CHECKING THE
 0000 71 LENGTH OF THE SHORTER STRING. IF A MATCH IS NOT FOUND,
 0000 72 A ZERO IS RETURNED. IF MORE THAN 1 VALUE MATCHES, THE
 0000 73 INDEX TO THE FIRST MATCH IS RETURNED A NEGATIVE NUMBER.
 0000 74 OTHERWISE THE INDEX IN THE TABLE OF STRINGS IS RETURNED,
 0000 75 AS A VALUE STARTING WITH 1.
 0000 76
 0000 77 CALLING SEQUENCE:
 0000 78 CALLS #2,LIBSMATCHKEY ; RETURN INDEX IN R1
 0000 80
 0000 81 INPUT PARAMETERS:
 0000 82
 0000 83 THE ADDRESS OF THE LIST OF COUNTED STRINGS FOLLOWED BY A 0 BYTE
 0000 84 THE ADDRESS OF A QUADWORD DESCRIPTOR DESCRIBING THE STRING TO MATCH
 0000 85
 0000 86 IMPLICIT INPUTS:
 0000 87
 0000 88 NONE
 0000 89
 0000 90 OUTPUT PARAMETERS:
 0000 91 R0 IS RETURNED AS THE INDEX TO THE MATCH
 0000 92
 0000 93
 0000 94 IMPLICIT OUTPUTS:
 0000 95
 0000 96 NONE
 0000 97
 0000 98 COMPLETION CODES:
 0000 99
 0000 100 A ZERO INDICATES NO MATCH, A MINUS NUMBER IS MORE THAN 1 MATCH
 0000 101
 0000 102 SIDE EFFECTS:
 0000 103
 0000 104
 0000 105
 0000 106 --
 00000000 107 .PSECT LIB_CODE EXE,RD,NOWRT
 0000 108
 0000 109 LIBSMATCHKEY:: : MATCH KEYWORD
 007C 0000 110 .WORD ^M<R2,R3,R4,R5,R6> : REGISTERS TO SAVE
 54 08 BC 7D 0002 111 MOVQ @DESCP(AP),R4 : GET DESCRIPTOR FOR THE STRING
 56 04 AC D0 0006 112 MOVL TABLE(AP),R6 : THE INPUT STRINGS
 0E 10 000A 113 BSBB 100\$: TRY FOR FIRST MATCH
 50 DD 000C 114 PUSHL R0 : SAVE THE INDEX
 07 13 000E 115 BEQL 10\$: BR IF NO MATCH
 08 10 0010 116 BSBB 100\$: TRY FOR AMBIGUOUS MATCH
 03 13 0012 117 BEQL 10\$: NOT AMBIGUOUS
 7E 8E CE 0014 118 MNEGL (SP)+-(SP) : CHANGE TO NEGATIVE
 01 BA 0017 119 10\$: POPR #^M<R0> : GET INDEX

	04	0019	120	RET		
	01	DD	001A	121		
	50	86	9A	001C	122 100\$: PUSHL #1	GET A INITIAL VALUE
	18	13	001F	123 110\$: MOVZBL (R6)+,R0	GET THE LENGTH	
	51	56	D0	0021	124 BEQL 130\$	BR IF END OF STRING
	56	50	C0	0024	125 MOVL R6,R1	SET ADDRESS
	54	50	D1	0027	126 ADDL R0,R6	POINT AT NEXT
	03	15	002A	127 CMPL R0,R4	SEE WHICH IS BIGGER	
	65	50	54	D0	002C 129 MOVL R4,R0	BR IF TARGET IS SHORTER
	61	50	29	002F	130 120\$: CMPC3 R0,(R1),(R5)	SET INPUT LENGTH
	06	13	0033	131 BEQL 140\$	CHECK FOR MATCH	
	6E	D6	0035	132 INCL (SP)	BR IF FOUND A MATCH	
	E3	11	0037	133 BRB 110\$	COUNT THE ITERATIONS	
	6E	D4	0039	134 130\$: CLRL (SP)	TRY AGAIN	
	50	8ED0	003B	135 140\$: POPL R0	SET ZERO INDEX	
	05	003E	136 RSB		GET THE VALUE	
	003F	137			RETURN WITH CONDITION CODE SET	
	003F	138		.END		

MATCHKEY
Symbol table

- MATCH A STRING AGAINST A KEY

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4-SEP-1984 23:16:12 [CLIUTL.SRC]MATCHKEY.MAR;1

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(3)

ADDR = 0000000C
DESCP = 00000008
LIB\$MATCHKEY = 00000000 RG 01
TABLE = 00000004

+-----+
! Psect synopsis !
+-----+

PSECT name	Allocation	PSECT No.	Attributes	CON	ABS	LCL	NOSHR	NOEXE	NORD	NOWRT	NOVEC	BYTE
ABS	00000000 (0.)	00 (0.)	NOPIC	USR	CON	ABS	LCL	NOSHR	NOEXE	NORD	NOWRT	NOVEC
LIB_CODE	0000003F (63.)	01 (1.)	NOPIC	USR	CON	REL	LCL	NOSHR	EXE	RD	NOWRT	NOVEC

+-----+
! Performance indicators !
+-----+

Phase	Page faults	CPU Time	Elapsed Time
Initialization	10	00:00:00.07	00:00:01.50
Command processing	75	00:00:00.86	00:00:04.65
Pass 1	65	00:00:00.48	00:00:02.80
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	49	00:00:00.29	00:00:02.15
Symbol table output	2	00:00:00.01	00:00:00.01
Psect synopsis output	2	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	205	00:00:01.74	00:00:11.13

The working set limit was 750 pages.

1705 bytes (4 pages) of virtual memory were used to buffer the intermediate code.

There were 10 pages of symbol table space allocated to hold 4 non-local and 6 local symbols.

138 source lines were read in Pass 1, producing 11 object records in Pass 2.

0 pages of virtual memory were used to define 0 macros.

+-----+
! Macro library statistics !
+-----+

Macro library name	Macros defined
\$255\$DUA28:[CLIUTL.OBJ]CLIUTL.MLB;1	0
\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	0
\$255\$DUA28:[SYSLIB]STARLET.MLB;2	0
TOTALS (all libraries)	0

0 GETS were required to define 0 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LI\$:\$:MATCHKEY/OBJ=OBJ\$:\$:MATCHKEY MSRC\$:\$:MATCHKEY/UPDATE=(ENH\$:\$:MATCHKEY)+EXECML\$:\$:LIB+LIB\$:\$:CLIUTL/LIB

0050 AH-BT13A-SE
VAX/VMS V4.0

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PASSWORDS
LIS